GARDEN IMPLEMENTS.

Useful Machines for the Cultivation of the Vegetable Crop.

The cultivation of a garden should be as perfect as possible. Usually it is supposed that hand work is better than machine work, and that the spade and hoe and rake are more effective than the plow and harrow and cultivator. But this is a great mistake. In every other industry machinery has been better and more effective than hand work. Machine-made watches keep better time; power looms make better cloth; and all other machinery turn out more and better work than the hands, however skillful they may become by use and habit. The plow turns over the soil as well as the spade and ten times more quickly; the harrow pulverizes and levels the soil, and the cultivator works and cleans it equally better than the rake and hoe. In market gardens this fact is turned to account, and the horse does the mechanical labor, and the man uses his brains and guides the horse.

But the farm and domestic garden need a good deal of light manual work, although the heavy work may be done by horses. To accomplish this the garden is, or should be, laid out in a long parallelogram, so that everything can be planted or sown in rows and cultivated as infield work. Then a small steel plow, a light sloping tooth harrow, and a good horse hoe will constitute the garden tools. Some hand hoeing, however, will be found necessary, and for this several of these useful implements will be required. A heavy, broad hoe, a narrow-bladed one, a pronged one and a forked one are necessary to different uses.

Now that injurious insects are so numerous and so destructive, a new set of apparatus is needed to preserve the crops from them. A barrel mounted upon a hand truck, with a force pump and spraying nozzle, are indispensable for the orchard; a Paris green distributor is needed for the potatoes; a kerosene oil emulsion spraying syringe is required for the onions and melons, and an insect powder distributor must be used to save the cabbages from the green worm. All these new pests call for new appliances for their destruction, and no garden is well furnished without them. But there are small gardens, such as those in towns and suburban localities where horses are not kept and hard work is still indispensable. Then is found the advantage of the most effective hand machines. The hand plow is the first of these. It is a small plow mounted on a wheeled frame something like that of a light wheelbarrow. It turns a furrow five inches deep and about as wide, and is one of the most useful tools that can be kept about a country house. We have plowed a quarter of an acre with it in a day.

Seed drills are another useful hand machine which save much backache and leg weariness in sowing seeds. An acre may be sown in a forenoon with any kind of seed. For sowing field beets, mangels, turnips or peas they are as useful as in the garden, but here they are so useful that no garden should be without one of them. Some of these valuable little machines are made to serve as cultivators as well, but as they are cheap we prefer to have a machine for each separate purpose and so keep it always ready for use.

A garden wheelbarrow is another necessary implement. This should be made with a set of boxes for seeds and nests for cultivator teeth, spare bolts, wrench, reel and line and other articles always wanted. A friend, who was an enthusiastic gardener, fitted up one of these vehicles with a seat and a large umbrella over it and would there rest himself occasionally when tired with work in the hot weather, or when surprised by a sudden light summer shower. It saved many steps back and forth, as it carried a complete outfit of tools, seeds, fertilizers and whatever articles might be needed in the day's work. A complete supply of stakes, bars, hoops, boxes, pots, panes of glass, etc., for making trellises, nursing boxes for young, tender plants, and supports for beans and peas; a steel trowel for transplanting, a pruning knife, a pair of thick, leather gloves, a pruning saw, and whatever experience may dictate should be provided liberally for the garden, and a place made for every thing and every thing kept in its place. And this calls for a convenient tool house.—*N. Y. Times.*

Malformation of the Eye.

"A strange case of malformation of the eye came under my notice the other day," said an optician recently. "A young man just from Germany came to me, asking to have a pair of glasses fitted. On examination I found that, in plain language, one of his eyes was of a microscopic character, while the other partook of the keenness and rays of a telescope. Far or near sightedness is by no means rare, and even both failings are often found in the same individual. But this is one of those rare combinations not often found. By closing the right eye the man could distinguish people and see small objects at an almost phenomenal distance, while his left was so formed that it was only of use in reading, and he couldn't decipher small print very well without the aid of eye-glasses. In all my experience I never saw a man so badly afflicted."—*Philadelphia Call.*

—A gentleman called at a Carlisle, Pa., bank one day recently and asked the teller if they paid full value for trade dollars, stating that he had forty of them which he had kept for several years. He then produced the coin and handed it to the teller, who found that every one was a Bland dollar.—*Chicago Herald.*

—Bagley—"My dear Pompana, you look dreadful. What is the matter?" "Merely a slight cough." "You're lucky. It might have been pneumonia." "Pneumonia! Do you think I can afford to have a rich man's disease? You'll be charging me with hay fever next."—*Philadelphia Call.*

—Miss B.—"Why is it, Mr. A., that whenever you refer to a Boston friend you invariably use the word "fellow?" New Yorker—"O, because he belongs around the Hub, of course."—*Boston Globe.*

FARM AND FIRESIDE.

—The greatest enemy the majority of farmers have to contend with is their own lack of skill, of forethought and intelligent labor.—*Minnesota Farmer.*

—A contemporary suggests that a cow can be easily led by a halter which commands her nose, but with difficulty by a rope around her horns.

—Spinach: Boil in salt and water, drain, chop, and then return to the saucepan with some butter; set on the fire until the butter is melted, and then serve.—*Boston Budget.*

—It has been said of Bakewell, the first great "scientific" breeder, that he regarded the animals on his farm as wax in his hands, out of which in good time he could mold any form he desired to produce.—*St. Louis Republican.*

—Cream Sponge Cake: Beat two eggs in a teacup, fill up the cup with sour cream, one cup of sugar, one and one-half cups of flour, two level teaspoonfuls of baking powder, or one-half teaspoonful of soda and one teaspoonful of cream of tartar. Flavor with lemon or vanilla.—*Household.*

—A carpet can be mended by cutting a piece like the carpet a little larger than the hole. Put paste around the edge of the patch, then slip it under the carpet and rub it well with a warm iron until dry. If the figure be matched it makes a very neat job, as well as a quick one.—*Indianapolis Journal.*

—It is now generally admitted that no road can be perfect that is not well underdrained. Throwing the dirt to the center turns off the surplus surface water, but that which goes down should be carried off underground instead of partially evaporating from the surface. *Troy Times.*

—Tapioca Pudding: Three-fourths of a cupful of tapioca, one quart milk, two eggs, separate the whites from the yelks, a pinch of salt, put into basin over boiling water until all jellies. After it cools put in flavoring, the whites of eggs well beaten and one teacupful of sugar.—*Toledo Blade.*

—Small pictures should never be hung below large heavy ones; the latter appear best in narrow spaces between moldings and other convenient nooks, or, if of high merit, resting on cabinets or mantels. In all cases these should be as near as possible in line with the eye. A simple subject vividly portrayed may even be mounted over the door.—*Cincinnati Times.*

CHEAP FOOD FOR HOGS.

The Most Economical Way of Keeping Pigs During the Summer.

The average Western hog is half starved during the first half of its existence and stuffed during the remaining half. An entire litter of pigs are allowed to suckle their dam as long as she gives any milk. The supply gradually diminishes as the creatures increase in size and require more food. It certainly happens that the stronger drive or push away the weaker ones, and that they remain of diminished size all their lives. After pigs are weaned the larger ones seek to monopolize the feeding-trough, and are frequently successful in doing so. Till corn is ready to harvest hogs on most farms find it difficult to get enough to eat, and after the corn is put in crib farmers find fault with their hogs because they do not eat enough. The gain of most hogs in summer is very small. At the time when milch cows are giving twenty quarts of milk per day, colts and sheep are growing rapidly, and young cattle are showing a steady gain of six pounds per week, pigs on many farms are barely "holding their own." It is the time when they should rapidly gain in weight like other farm animals.

In the Western States farmers put so much reliance on corn for feeding hogs that they often neglect to raise other kinds of food for them. They may know that an acre in common red or mammoth clover will produce more hog food than an acre in corn, and they are certainly aware of the fact that the animals will harvest the clover if they are given the opportunity. But the cost of fencing the hog pasture or the trouble of cutting the clover prevents the pigs from having the food they want. They are accordingly kept on a short allowance of food during the time it is the most abundant. If corn was not so abundant in the Western States, and was not so generally relied upon for making pork, it is likely that hogs would be better supplied with food during the growing season. In England and Germany, where no corn is produced, and in Canada, where but little is raised, hogs gain faster during warm weather than they do here, for the reason that they are better supplied with proper food. They grow clover, peas, tares, roots, potatoes, mill-stuffs and oil-cake. That keeping hogs on small rations during part of the year and then stuffing them with dry corn produces injurious effects on them, is generally admitted. Still, very little is done by most farmers to avoid the evils complained of. Our hogs receive very little attention during the summer, chiefly because their owners are two busily engaged in raising corn to feed to them after cold weather sets in. In the meantime the hogs are getting up a good appetite by a rigid course of fasting, and are preparing to lay on fat and contract the cholera.

The cheapest way to keep hogs during the summer is to provide pastures seeded to clover, orchard and blue grass. The hog by nature is a grazing animal, and will not only sustain life, but gain in weight, if it has an opportunity to eat suitable forage crops. If a farmer is not so situated that he can inclose and seed land for pasturing his hogs, he can, at least, fence in a large yard and keep it supplied with food that costs less than corn and is better for the animals that eat it. Hogs will do well on green, tender grass and clover cut and thrown into their yards. Pea vines, fodder corn, pumpkins and squashes will also be readily eaten. Flax-seed, if ground or cooked, forms a valuable food to be eaten in connection with green fodder. An occasional feed of corn is good, but very little will be required to keep hogs in a growing condition if they are well supplied with the cheaper articles referred to.—*Chicago Times*

SCIENCE AND INDUSTRY.

—Daytona, Fla., ships on an average of 250 boxes of oranges a day to Northern markets.

—Over 180 natural gas and oil companies have been organized in the State of Ohio during the past sixteen months.

—A new absorbent preparation is made from the cocoanut fiber. It is called cofferdam, and will hold like a sponge from twelve to fourteen times its own weight of water.—*Springfield Times.*

—At the close of 1886 the American Association of Science, according to the report of the permanent secretary, had 1,886 members. Of these, 631, being specially engaged in scientific work, have been elected to the rank of fellows.

—M. Lacombe, a Frenchman, has succeeded in taking long-distance photographs by fixing a telescope in front of the objective of the camera. The apparatus promises usefulness to tourists and other amateurs.

—A scientist, after a careful analysis of the impression made upon the retina by different degrees of light, concludes that both white and black are colors, and both should have a proper place upon the chromatic scale.—*Frank Leslie's Newspaper.*

—According to the United States census of 1870, of the total steam and water power employed 48.18 per cent. was water. In 1880 the percentage of water power had decreased to 35.39 per cent. From this it will be seen that water power is fast falling behind in the race.—*Boston Budget.*

—A striking experiment in the combination of colors was performed a short time since by Prof. Vogel at a meeting of the Physical Society of Berlin. He wished to demonstrate the incorrectness of the popular notion that yellow and blue, when mixed, always make green. He took two phials, one containing acid yellow, and the other aniline blue. He mingled their contents together, and the result was a mixture not green in color, but of a fiery red hue.—*N. Y. Ledger.*

—In a recent paper on the coincidence of certain solar phenomena with the perturbations of terrestrial magnetism, M. E. Marchand shows, from a comparative study of the solar observations made at the Lyons Observatory, in 1885-86, with the curves of the Mascart magnetic recorder, that there exists a direct relation between the terrestrial magnetic disturbances and the displacement of certain solar elements accompanying the spots and the faculæ.

—There is now little doubt that 1887 will be the biggest building year that this country has ever known in railroads, factories and other houses. It is now estimated that 21,000 miles of new and 19,000 miles of old railway track will be laid this year—thus affording the iron furnaces and steel rolling and rail mills an abundance of work. The cost of these railroads is estimated at $538,000,000 for the new and $100,000,000 for the old roads—or say $650,000,000 of capital needed for the railroads alone.—*Public Opinion.*

—M. Ligner, an Austrian meteorologist, claims to have ascertained after careful investigation that the moon has an influence on a magnetized needle varying with its phases and its declination. The phenomenon is said to be more prominently noticeable when the moon is near the earth, and to be very marked when she is passing from the full to her first or second quarter. The disturbances are found to be at their maximum when the moon is in the plane of the equator, and greater during the southern than it is during the northern declination.—*Chicago Times.*

PUNGENT PARAGRAPHS.

—A Frenchman has invented a telephone which costs but 62½ cents. But just wait till the company fixes the rent before you waste any congratulations. —*Pittsburgh Chronicle-Telegraph.*

—The Seabrook (N. H.) selectmen have decided that a hen is not an animal. Wonder if they reckon her as a vegetable because of her crop.—*Lowell Courier.*

—The Reason Why.—
The reason we forgive the great
For the achievements they pursue
Is that we think some kindred trait
We trace in every thing we do.
—*Texas Siftings.*

—Judge—"What have you to say against this charge of beating your own wife?" Prisoner—"Me own wife, yer honor? Begorrah! had it been some other man's wife you wouldn't give me less than a year."—*Philadelphia Call.*

—Counsel (badgering a witness)—"Remember, sir that you are on oath." Witness—"Yes, sir." Counsel—"Now—what—did—you—do—when—as—you—say—the—prisoner—threw—a—beer—glass—at—you?" Witness—"I dodged."—*N. Y. Sun.*

—The following conversation was overheard by a *Tid-Bit* representative: Wife—"John, I want seven dollars for dog-collar." Husband—"Seven dollars! You must be crazy. All I pay for my collars is twenty-five cents." Wife—"Yes, John, but you're no dog."

—"Mr. Walker," said the clerk, "the twelve cent prints at the remnant counter are going fast and are about sold out." "All right, I'll attend to it. Mr. Anawan, cut a lot more of those seven cent prints into remnants and send them over to the bargain counter."—*Burdette.*

—Almost any summer weather is too hot for people to witness a theatrical performance when tickets must be bought; but the thermometer must climb to the high gallery to get above those who will crowd a theater to see a free show, even on a July night.—*N. O. Picayune.*

—"I'm almost dead from house hunting," wearily sighed Mrs. Gossip. "What do you want with a house?" interrogated Mrs. Snyder. "I thought you owned your own house." "Of course I don't want a house," was the confidential reply, "but I just like to go around and see how people live, you know."—*Judge.*

—A French scientist who divines character by a simple inspection of noses says that "the quick, passionate, sanguine person has a strongly colored nose of a uniform shade." This gives us a most accurate estimate of the character of the American tramp, whose strongly colored nose does not vary its uniform shade with season or climate. And yet he has never been accused of being quick. Perhaps it means that he is quick not to work.—*Burdette.*